3. Bishop

Program Name: Bishop.java Input File: bishop.dat

You're playing chess on a nice *n* x *m* board. Your opponent decided to place *k* bishops around the board. How many positions do you have to safely place your pawn? In chess, a bishop moves and captures along all 4 diagonals leading away from it. It can move as much as the entire length of a diagonal to do so, therefore you are not safe anywhere along any of the diagonals leading away from a bishop.

Input
The first line of input contains *t*, the number of test cases that follow.

For each test case, the first line will consist of three integers, *n*, *m*, and *k*, where *n* represents the number of rows, *m* represents the number of columns, and *k* represents the number of placed bishops. The following *k* lines have two integers each, representing the row and column of a bishop. All positions are 0-indexed.

Output
For each test case, print the number of locations you can safely place your pawn on the board.

Constraints
```
1 <= t <= 10
1 <= n, m <= 1000
0 <= k <= n * m
```

Example Input File
```
3
2 2 1
0 0
2 2 2
0 0
1 0
3 1 2
0 0
1 0
```

Example Output to Screen
```
2
0
1
```